

Notice of Allowability

Application No.

09/677,375

Examiner

David Lukton

Applicant(s)

BELL ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/24/04.
2. ☒ The allowed claim(s) is/are 6-13, 15-19, 21-23, 27 and 28.
3. ☒ The drawings filed on 15 September 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20040501.
7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1800

Pursuant to the response filed 3/24/04, no claim has been added, amended or cancelled. Claims 1-26 remain pending. Claims 14-23, previously withdrawn, have now been rejoined and examined. Pursuant also to the following Examiner's Amendment, claims 6-13, 15-19, 21-23, 27-28 are allowable.



An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. §1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the Issue Fee.

- Cancel claims 1-5, 14, 20 and 24-26.
- In claim 15, line 1, delete "claim 14"

and substitute therefor: - - claim 27 - - .

- In claim 17, line 1, delete "claim 14"

and substitute therefor: - - claim 27 - - .

- In claim 18, line 1, delete "claim 14"

and substitute therefor: - - claim 27 - - .

- In claim 21, line 1, delete "claim 20"

and substitute therefor: - - claim 28 - - .

- In claim 22, line 1, delete "20"

and substitute therefor: - - 28 - - .

- Add the following claims:

27. A device for extracorporeal removal of endotoxin from whole blood comprising a container which contains and retains an endotoxin removal adsorbent,

wherein said endotoxin removal adsorbent comprises a ligand immobilized on a solid phase support medium, the ligand consisting essentially of a mixture of oligopeptides, of which at least one oligopeptide is a branched oligopeptide, said oligopeptides being composed of one or more amino acids having a $pK > 7.2$, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule,

wherein said solid phase support medium is sufficiently porous to allow passage of blood cells therethrough, and

wherein said container has an inlet and an outlet positioned with respect to the adsorbent such that blood entering the inlet contacts the adsorbent before exiting the container through the outlet.

28. A method for removing endotoxin from blood of an animal or human subject comprising removing a portion of blood from the subject, contacting the blood with an adsorbent

wherein said adsorbent comprises a ligand immobilized on a solid phase support medium, the ligand consisting essentially of a mixture of oligopeptides, of which at least one oligopeptide is a branched oligopeptide, said oligopeptides being composed of one or more amino acids having a $pK > 7.2$, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule;

whereby endotoxin is removed from the blood by adsorption to said adsorbent, then

Serial No. 09/677375
Art Unit 1653

-4-

returning the blood to the subject.

Authorization for this Examiner's Amendment was given in a telephone conversation with Heeja Yoo-Warren on 5/4/04.

◇

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lukton whose telephone number is 571-272-0952. The examiner can normally be reached Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low, can be reached at 571-272-0951. The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

D. Lukton 5/11/04

Christopher S. F. Low
CHRISTOPHER S. F. LOW
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600